8 Create a class named Shape with a function that prints "This is a shape". Create another class named Polygon inheriting the Shape class with the same function that prints "Polygon is a shape". Create two other classes named Rectangle and Triangle having the same function which prints "Rectangle is a polygon" and "Triangle is a polygon" respectively. Again, make another class named Square having the same function which prints "Square is a rectangle". Now, try calling the function by the object of each of these classes. Write a C++ program to demonstrate the same.

```
#include <iostream>
using namespace std;

class Shape {
public:
   void display() {
      cout << "This is a shape" << endl;
   }
};

class Polygon : public Shape {
public:
   void display() {
      cout << "Polygon is a shape" << endl;
   }
};

class Rectangle : public Polygon {
public:
   void display() {
      cout << "Rectangle is a polygon" << endl;
   }
};

class Triangle : public Polygon {
public:
   void display() {
      cout << "Triangle is a polygon" << endl;
   }
};

class Square : public Rectangle {
public:
   void display() {
      cout << "Square is a rectangle" << endl;
   }
};

int main() {
   Shape s;
   Polygon p;
```

```
    Rectangle r;
    Triangle t;
    Square sq;

    cout << "Calling display() using each object:" << endl;
    s.display();
    p.display();
    r.display();
    t.display();
    sq.display();

    return 0;
}
```